

B.Pharm I Year I Semester (R19) Supplementary Examinations September 2022

PHARMACEUTICAL INORGANIC CHEMISTRY

(For 2019, 2020 & 2021 admitted batches only)

Time: 3 hours

Max. Marks: 75

PART – A

(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- | | |
|--|----|
| (a) Write the principle involved in the limit test for sulphates. | 2M |
| (b) What is modified limit test? Give examples. | 2M |
| (c) Define acids and bases. Give examples. | 2M |
| (d) Define dentifrices with example. | 2M |
| (e) Define and classify antimicrobials with examples. | 2M |
| (f) Write any two properties and medical uses of alum hydroxide gel. | 2M |
| (g) Give any two reactions for potash alum. | 2M |
| (h) Write the medical uses and reaction for ferrous gluconate. | 2M |
| (i) Define half-life with suitable examples. | 2M |
| (j) Define radioactive. Give example. | 2M |

PART – B**(Answer any two questions: 02 X 10 = 20 Marks)**

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|---|---|-----|
| 2 | Explain in detail the measurement of tonicity and methods of adjusting isotonicity. | 10M |
| 3 | Write the preparation, assay & medical use for ammonium chloride and add a note on combination of antacids. | 10M |
| 4 | Write in detail poison and antidotes with suitable examples. | 10M |

PART – C**(Answer any seven questions: 07 X 05 = 35 Marks)**

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|----|---|----|
| 5 | Explain the principle and process involved in the limit test for lead. | 5M |
| 6 | Write the preparation and assay for calcium gluconate. | 5M |
| 7 | Explain any two properties, assay and medical uses for sodium bicarbonate. | 5M |
| 8 | Write the preparation and assay for hydrogen peroxide. | 5M |
| 9 | Explain in detail measurement of radioactivity. | 5M |
| 10 | Explain the storage condition and pharmaceutical application of radioactive substances. | 5M |
| 11 | Write a note on expectorant with suitable examples. | 5M |
| 12 | Explain the sources and various types of impurities in pharmaceutical substances. | 5M |
| 13 | Write a note on desensitizing agents with examples. | 5M |

B.Pharm I Year I Semester (R19) Regular Examinations July 2022

PHARMACEUTICAL INORGANIC CHEMISTRY

(For 2021 admitted batches only)

Time: 3 hours

Max. Marks: 75

PART – A

(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- | | |
|---|----|
| (a) Write the types of impurities in pharmaceutical substances. | 2M |
| (b) Write the principal involved in the limits test for chlorides. | 2M |
| (c) What are buffers? Give examples. | 2M |
| (d) Define isotonic solution with examples. | 2M |
| (e) Write any two chemical properties and medicine for Dil.HCL. | 2M |
| (f) Write the ideal properties of antacids. | 2M |
| (g) Give any two reactions for sodium nitrite 333. | 2M |
| (h) Define astringent with examples. | 2M |
| (i) Explain the various precautions taken for radiopharmaceuticals. | 2M |
| (j) What are radiopharmaceuticals? Give examples. | 2M |

PART – B**(Answer any two questions: 02 X 10 = 20 Marks)**

- | | | |
|---|--|-----|
| 2 | Explain the electrolytes used in the replacement therapy. | 10M |
| 3 | Define haematinics. Write the preparation, assay, properties and medicinal uses for copper sulphate. | 10M |
| 4 | Write a note on Oral Rehydration Salts (ORS). Add note on physiological acid base balance. | 10M |

PART – C**(Answer any seven questions: 07 X 05 = 35 Marks)**

- | | | |
|----|---|----|
| 5 | Explain the principle and procedure involved in the limits for iron. | 5M |
| 6 | Explain in detail the role of fluoride in the treatment of dental caries. | 5M |
| 7 | Write a note on cathartics with suitable examples. | 5M |
| 8 | Write any two reactions and medicinal uses for potassium permanganate. | 5M |
| 9 | Write in detail the properties of α , β , δ radiations. | 5M |
| 10 | Write a note on radio isotopes with suitable examples. | 5M |
| 11 | Write the reaction and medical uses for sodium potassium tartrate. | 5M |
| 12 | Explain in detail the history of pharmacopoeia. | 5M |
| 13 | Explain the modified limit test for sulphate. | 5M |

B.Pharm I Year I Semester (R19) Supplementary Examinations April/May 2022

PHARMACEUTICAL INORGANIC CHEMISTRY

(For 2019 & 2020 admitted batches only)

Time: 3 hours

Max. Marks: 75

PART – A

(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- Define limit test.
 - Write modified limit test for chloride.
 - Define ORS.
 - What are dentifrices? Give two examples.
 - Write assay of sodium thiosulphate.
 - List out the iodine preparations and their composition.
 - What are expectorants and emetics? Give suitable examples.
 - Define and give examples for Haematinic.
 - List out the pharmaceutical applications of any two radioactive substances.
 - Write the precautions of radioisotopes.

PART – B**(Answer any two questions: 02 X 10 = 20 Marks)**

- 2 Write the principle and reaction involved in the limit test for Iron and sulphate.
- 3
- Classify antacid. Write a note on acid neutralizing capacity of Aluminium Hydroxide gel.
 - Give the preparation, assay and properties of Aluminium Hydroxide gel.
- 4
- List out and explain the role of electrolytes in acid base balance.
 - Give the preparation, assay and uses of ferrous sulphate.

PART – C**(Answer any seven questions: 07 X 05 = 35 Marks)**

- 5 Write the sources of impurities in pharmaceutical substances.
- 6 Explain the principle and reaction involved in the limit test for lead.
- 7 Write about the preparation, assay and uses of calcium gluconate.
- 8 Write about the preparation, assay and uses of copper sulphate.
- 9 Explain about sodium bicarbonate.
- 10 Discuss about the properties and uses of the followings:
(i) Magnesium sulphate. (ii) Sodium ortho phosphate.
- 11 Write a short note on Alum.
- 12 What are expectorants? Give the preparation, properties, assay and uses of ammonium chloride.
- 13 Give a brief note on alpha, beta and gamma radiation.

B.Pharm I Year I Semester (R19) Regular & Supplementary Examinations August/September 2021
PHARMACEUTICAL INORGANIC CHEMISTRY

Time: 3 hours

Max. Marks: 75

PART – A
(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- Write about applications of limit test.
 - Write the principle involved in the limit test for heavy metals.
 - Define buffer and isotonic solution.
 - Write the classification of dental products with examples.
 - Define and classify acidifiers with examples.
 - How will you prepare chlorinated lime?
 - Define emetics and antidote.
 - Write the uses of ferrous sulphate, sodium thiosulphate and potash alum.
 - Write any four radioactive pharmaceutical and their medicinal uses.
 - Write about the precautions of radioactive substances.

PART – B
(Answer any two questions: 02 X 10 = 20 Marks)

- Explain the various sources and types of impurities in pharmacopoeial substances with examples.
 - Describe the principle and procedure involved in the limit test for arsenic.
- Write the preparation, properties and assay of calcium gluconate.
 - What are the roles of fluoride in the treatment of dental caries?
- Write the ideal properties of antacids.
 - Write about the various mechanisms of antimicrobials.

PART – C
(Answer any seven questions: 07 X 05 = 35 Marks)

- Write the principle and procedure involved in the modified limit test for chlorides.
- Write the applications of buffer in pharmacy.
- Write the preparation, properties and assay of ammonium chloride.
- Write the preparation, properties and assay of copper sulphate.
- Define and classify antacids with examples.
- Describe the principle and procedure involved in Geiger Muller counter technique with diagram.
- Define half life and write the properties of Alpha rays.
- Write about history of pharmacopoeia.
- What are the intra and extra cellular electrolytes? Give examples.

B.Pharm I Year I Semester (R19) Supplementary Examinations March 2021

PHARMACEUTICAL INORGANIC CHEMISTRY

Time: 3 hours

Max. Marks: 75

PART – A

(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- Write about various editions of Indian pharmacopoeia along with year.
 - Write the principle involved in the limit test for sulphate.
 - Write the combination of oral rehydration salt.
 - Write the classification of dental products with examples.
 - Write the classification of cathartics with examples.
 - How will you prepare hydrogen peroxide?
 - Define expectorants and astringents.
 - Write the uses of copper sulphate, sodium thiosulphate and zinc sulphate.
 - Define half life and radio activity.
 - Write about the storage conditions of radioactive substances.

PART – B**(Answer any two questions: 02 X 10 = 20 Marks)**

- 2 (a) Describe the principle and procedure involved in the limit test for arsenic with neat labeled diagram of Gutzeit's apparatus.
(b) Add a note on the importance of limit test.
- 3 (a) Describe about the acid and base buffer actions with examples.
(b) Derive the Henderson-Hasselbalch equation to calculate the pH of buffer.
- 4 (a) Write the ideal properties of antacids.
(b) Write the preparation, properties and assay of Ammonium chloride.

PART – C**(Answer any seven questions: 07 X 05 = 35 Marks)**

- 5 Write the principle and reaction involved in the limit test for iron.
- 6 Write the preparation, properties and assay of sodium chloride.
- 7 Write the different mechanisms of antimicrobial agents with examples.
- 8 Write the preparation, properties and assay of sodium thiosulphate.
- 9 Define and classify emetics with examples.
- 10 How will you measure the radioactivity?
- 11 Write the pharmaceutical applications of radioactive substances.
- 12 Explain sources of impurities with examples.
- 13 What are the roles of fluoride in the treatment of dental caries?

B.Pharm I Year I Semester (R19) Supplementary Examinations October 2020
PHARMACEUTICAL INORGANIC CHEMISTRY

Time: 3 hours

Max. Marks: 75

PART – A
(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- How do you carry out limit test for chlorides in the given sample of KMnO_4 ?
 - Define the terms, materia medica and Indian pharmaceutical commission.
 - How much quantity of glucose is added as an ingredient in ORS powder? Mention its role.
 - How dental caries occurs? Give the mechanism.
 - What are the disadvantages of sodium bicarbonate as an antacid?
 - What is povidone iodine? Mention its advantages over tincture iodine.
 - What is an alum? Give the chemical composition and use of potash alum.
 - How sodium thiosulphate helps in the treatment of cyanide poisoning?
 - Differentiate alpha and beta radiation.
 - What is Technetium? Mention its applications.

PART – B
(Answer any two questions: 02 X 10 = 20 Marks)

- What are the possible sources of impurities in pharmaceuticals?
 - Give the principle with reactions involved in the limit test for arsenic.
- What are the normal level and physiological roles of calcium and bicarbonate?
 - Give the method of preparation and principle involved in the assay of calcium gluconate.
- What are expectorants? Give examples. Write the preparation and principle involved in the assay of any one compound.
 - Discuss the method of preparation and method of assay of chlorinated lime.

PART – C
(Answer any seven questions: 07 X 05 = 35 Marks)

- Explain the principle involved in limit test for Iron.
 - Give the reason for adding thioglycolic acid and ammonia in Iron limit test.
- Write in brief the history of pharmacopoeia.
- Discuss in brief the chemical buffer system in human body.
- Give the method of preparation and principle involved in the assay of ammonium chloride and mention its medicinal uses.
- Define cathartics with examples.
 - How do they cathartics act? Quote its medicinal uses.
- Give the principle involved in the assay of ferrous sulphate.
 - How do you standardize ceric ammonium sulphate?
- What are emetics? Mention few examples.
 - Give a method of preparation of copper sulphate and sodium thiosulphate.
- What are hazards of radioisotopes? Mention the precautionary measures and storage conditions.
- Write a note on applications of radiopharmaceuticals.

B.Pharm I Year I Semester (R19) Regular Examinations February 2020

PHARMACEUTICAL INORGANIC CHEMISTRY

Time: 3 hours

Max. Marks: 75

PART – A

(Compulsory Question)

1 Answer the following: (10 X 02 = 20 Marks)

- (a) What is the role of potassium iodide and hydrochloric acid in limit test for arsenic?
- (b) How will you carry out limit test for chlorides in sodium bicarbonate sample?
- (c) Differentiate physiological roles of sodium and potassium in human body.
- (d) How do you prevent dental caries?
- (e) Why combination is preferred than individual in antacid therapy?
- (f) What is the chemical difference between bentonite and kaolin? Mention their uses.
- (g) What is activated charcoal? Give its use.
- (h) Differentiate iodometric and iodimetric titrations with example. What is the reason for adding starch solution as indicator at the end of these titrations?
- (i) Define the terms radioisotope and half-life with examples.
- (j) Mention the types of units available to measure the radioactivity.

PART – B**(Answer any two questions: 02 X 10 = 20 Marks)**

- 2 (a) Write a brief note on history of pharmacopoeia.
(b) What are heavy metals? Give the principle involved in limit test for heavy metals and sulphates.
- 3 (a) How bicarbonate and phosphate buffer system works in human body?
(b) Discuss the method of preparation and principle involved in the assay of sodium chloride.
- 4 (a) Classify anti-microbial agents with examples.
(b) Write a note on various iodine preparations.

PART – C**(Answer any seven questions: 07 X 05 = 35 Marks)**

- 5 Explain the principle involved in limit test for arsenic.
- 6 What are the types and possible sources of impurities in pharmaceuticals?
- 7 (a) Define dentifrices. Give examples.
(b) How fluorides help in the treatment of caries?
- 8 What is ORS powder? Give the composition and applications.
- 9 Give the method of preparation, principle involved in the assay of sodium bicarbonate.
- 10 Discuss the preparation, assay and medicinal uses of hydrogen peroxide.
- 11 Define antidote. Give the method of preparation and principle involved in the assay of sodium thiosulfate.
- 12 Write a note on therapeutic and diagnostic applications of radiopharmaceuticals.
- 13 Give the working principle of Geiger-Muller counter.
